

REMARKS

Claims 1–66 were pending in the application. Claims 1-9 and 19-68 are withdrawn by the Examiner. Claims 10-13 and 17-18 are amended. New claims 69 and 70 are added. No new matter is added by way of these amendments.

In the specification:

(Item 5). As requested by the Examiner, the title of the invention has been amended to be descriptive of the invention to which the present claims are directed.

(Item 6). Paragraphs [0002], [0008], and [0032] have been amended to update the current status of the parent application, as requested by the Examiner.

(Item 7). Applicant acknowledges the Examiner's request for proper citation of trademarks. However, the terms "Phlogopite", "Muscovite", "Biotite", "Fuchsite", "Lepidolite", and "Zinnwaldite" are not registered trademarks/tradenames. They are in fact proper mineral terms known to those of skill in the geologic art, e.g., as identified in following literature references:

- 1) A Textbook of Mineralogy with an Extended Treatise on Crystallography and Physical Mineralogy", Edward Salisbury Dana, 4th ed., John Wiley & Sons, Inc., New York, 1932); and

- 2) "MICAS: CRYSTAL CHEMISTRY AND METAMORPHIC PETROLOGY",
Reviews in Mineralogy and Geochemistry (eds. Mottana, Sassi, Thompson, and
Guggenheim), Vol. 46, 2002, Mineralogical Society of America, Washington,
D.C., 499 pgs.

Reference No. 2, Appendix 1, for example, lists these mineral names as accepted present-day nomenclature, many of which have been used since, e.g., the 19th century. Pertinent portions of these references are attached for the Examiner's review.

Secondly, none of the micas cited in the application are identified or listed as registered tradenames or trademarks by any vendor or entity in the official U.S. Office trademark registry. Thus, requiring citation of these minerals as registered trademarks under MPEP §608.01(v), §706.03 (d), and/or §2173.05 (u) is improper. Applicant respectfully requests the objection be withdrawn in view thereof.

I. Claims Objected

(Item 8). Claims 10 and 12 are objected to by the Examiner because of a noted informality, i.e., presence of parentheses in the claims. These claims are amended in the current action to remove this informality. Applicant respectfully requests withdrawal of the objection in view thereof.

II. Rejections under 35 U.S.C. §112, second paragraph

(Item 11). Claims 12 and 17-18 stand rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner cites the use of tradenames in Claim 12: "Phlogopite", "Muscovite", "Biotite", "Fuchsite", "Lepidolite", and "Zinnwaldite" as being improper, as the "tradenames cannot be used properly to identify the particular material or product." Applicant traverses this rejection.

As discussed hereinabove, the terms "Phlogopite", "Muscovite", "Biotite", "Fuchsite", "Lepidolite", and "Zinnwaldite" are not trademarks/tradenames. Rather they are proper mineral terms, having defined chemical formulas and compositions. As such, their use in the claims is definite. Applicant respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. §112, second paragraph in view thereof.

(Item 12). The Examiner cites use of the tradename "G-18 glass" in Claims 17-18 as being improper. Paragraph [0008] in the specification is amended in the current action to recite the chemical composition of the G-18 glass to correct the citation as a tradename in this instance. Claims 17-18 are also amended to recite the composition of the G-18 glass, to remove need for citation of the G-18 tradename in the claims. Applicant respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. §112, second paragraph in view thereof.

III. Rejections under 35 U.S.C. §102 (GB 2312479)

(Item 14). Claims 10 – 13 stand rejected by the Examiner under 35 U.S.C. §102(b), as being allegedly anticipated by UK patent Application GB 2312479 (GB '479). According to the Examiner, GB '479 discloses "...a sealing portion of a softer filler

material...including at least two turns of said filler material...The filler material of the sealing portion is made at least of mica". Applicant traverses this rejection.

According to the Federal Circuit: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegall Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)(citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)).

Claim 10 as currently amended recites: a sealing member disposed between a first and a second compliant interlayer; wherein said sealing member comprises a mica paper having a plurality of mica members therein infiltrated with at least one glass forming material sealing a plurality of leak paths between said plurality of mica members within said sealing member at an operating temperature of said seal; and wherein said sealing member provides a sufficiently low effective leak rate in said compressive seal effectively sealing said compressive seal at said operating temperature.

The Examiner's assertion with regard to the disclosure in GB '479 does not amount to anticipation of Claim 10. For example, there is no disclosure directed to the sealing

portion in GB '479 that comprises of "...a mica paper having a plurality of mica members therein infiltrated with at least one glass forming material sealing a plurality of leak paths between said plurality of mica members within said sealing member at an operating temperature of said seal. (emphasis added). For at least this reason, Claim 10 is not anticipated. Applicant further notes that claims 12-13 depend from claim 10, which distinguishes over the cited art. As such, if the independent claim from which these claims depend is patentable, the additional limitations of these dependant claims cannot, as a matter of law, render them unpatentable [In *re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir. 1988)]. Applicant respectfully requests the rejection of Claims 10-13 be withdrawn in view thereof.

IV. Rejections under 35 U.S.C. §102 (GB 2312479)

(Item 15). Claims 10 – 13 stand rejected by the Examiner under 35 U.S.C. §102(b), as being allegedly anticipated by US patent Application US 6,565,099 to Ottinger et al. According to the Examiner, Ottinger et al. disclose *inter alia* "...a multi-layer gasket body including a covering made of polymer foil joined to one side of a metal foil; the other side is joined to an outer side of a graphite foil with the inner side to a metal foil. The central layer of the gasket is formed of graphite foil. Ottinger et al. disclose use of mica for making the core of the gasket body. Further, according to the Examiner, because the sealing portion is made of at least mica, the gasket is capable of achieving the claimed leak rates. Applicant traverses this rejection.

The limitations disclosed in Ottinger et al. do not amount to anticipation of Claim 10 as amended.

For example, the gasket body disclosed in Ottinger et al. does not disclose use of “a mica paper infiltrated with at least one glass forming material sealing a plurality of leak paths between said plurality of mica members within said sealing member” (emphasis added). For at least this reason, Claim 10 is not anticipated. Applicant further notes that claims 12-13 depend from claim 10, which distinguishes over the cited art. Again, if the independent claim from which these claims depend is patentable, the additional limitations of these dependant claims cannot, as a matter of law, render them unpatentable [*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir. 1988)]. Applicant respectfully requests the rejection of Claims 10-13 be withdrawn in view thereof.

V. Rejections under 35 U.S.C. § 103

(Item 17). Applicant acknowledges the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

Applicant asserts the requirements of 35 U.S.C. 103(c) have been met in the present invention, as there is at least one common inventor between the current application and the parent application.

(Item 18). Claims 14 – 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over GB '479 and/or Ottinger et al. (US 6565099) and further in view of Meinhardt et al. (US 6532769). Applicant traverses the rejection of these claims.

According to M.P.E.P. § 2143.03:

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPa 1974).”

The Examiner has presented the teaching of Figure 2 of Ottinger et al. “wherein the sealing gasket body is in direct contact with other outer members, the spaces adjacent thereto are effectively sealed by the outer members which are made of at least a melt-forming material.”

However, both GB '479 and Ottinger et al. fail to teach that the sealing member of Applicant's Claim 10, in particular, comprises a mica paper infiltrated with at least one glass forming material sealing a plurality of leak paths between said plurality of mica members within (i.e., internal to) said sealing member (emphasis added). Absent this teaching, the combination of GB '479, Ottinger et al., and Meinhardt et al. does not obviate Applicant's claims.

Further, while the Examiner states that Meinhardt et al. disclose a glass-ceramic

material blend of M1-M2-M3 wherein M1 is BaO, SrO, CaO, MgO or combination thereof; M2 is Al₂O₃ in an amount from 2-15 mol% and M3 is SiO₂ with an amount of B₂O₃ up to 50 mol%, the Examiner has failed to demonstrate that Meinhardt et al. suggest or teach use of this composition as an infiltrating material internal to the mica-based sealing member to seal leak paths therein, as required by Applicant's Claims. Meinhardt et al., in fact, teaches application of the M1-M2-M3 composition to interfaces between ceramic components (see, e.g., Line 28, Col. 4), not components internal to the mica sealing member as in Applicant's claims. Absent this teaching, Meinhardt et al. cannot obviate Applicant's claims.

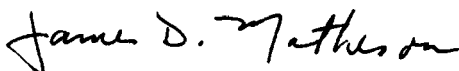
Applicant further notes that claims 14-18 depend from claim 10, which claim has been shown to distinguish over the cited art. Again, if the independent claim from which these claims depend is patentable, the additional limitations of these dependant claims cannot, as a matter of law, render them unpatentable [*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir. 1988)]. For at least these reasons, Applicant respectfully requests the rejection of Claims 10 and 14-18 be withdrawn.

New Claims 69-70 find support in the claims as originally filed. As demonstrated herein, Claim 10 is patentable over the cited combination of references. As such, Claims 69 and 70 are also patentable.

CLOSURE

Applicant has made an earnest attempt to respond in a proper manner to the Examiner's requested actions in this case. Allowance of the claims is respectfully requested. Should the Examiner identify any further requirements, he is invited to contact the undersigned for resolution thereof.

Respectfully submitted,

A handwritten signature in black ink that reads "James D. Matheson". The signature is written in a cursive, flowing style.

James D. Matheson
Reg. No. 54,569

James D. Matheson, Ph.D.
Intellectual Property Legal Services
Battelle Memorial Institute
Pacific Northwest National Laboratory
P.O. Box 999, MSIN (K1-53)
Richland, WA 99352
(509) 375-3782

(Attachments)

- 1) Included: Title page, Preface, and pp. 656-667 from: A Textbook of Mineralogy with an Extended Treatise on Crystallography and Physical Mineralogy, Edward Salisbury Dana, 4th ed., John Wiley & Sons, Inc., New York, 1932.
- 2) Included: Title page, Preface, and pp. 498-499 from: MICAS: CRYSTAL CHEMISTRY AND METAMORPHIC PETROLOGY", *Reviews in Mineralogy and Geochemistry* (eds. Mottana, Sassi, Thompson, and Guggenheim), Vol. 46, 2002, Mineralogical Society of America, Washington, D.C.